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Main Features

- 480 x 240 , 1.5" TFT LCD Screen Display
- 14MP HD CMOS Image Sensor
- 170° Super Wide angle under 720P; 135° under 1080P
- Full HD 1080P H.264 Video compression to MP4 format
- Waterproof, shockproof, support 50M depth diving
- Wireless RF remote controller
- Support Multi-mode video record and picture shot
- Built in WIFI, real-time video display and setting
- Optional Video resolution

16: 9 FULL HD 1920 x 1080p 30FPS	16:	: 9 FULL	HD 1920 x 1080p	30FPS
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4:3 FULL HD 1280 x 960p 30FPS

16: 9 FULL HD 1280 x 720p 60FPS

16:9 FULL HD 1280 x 720p 30FPS

16:9 WVGA 848 x 480 60FPS

Optional Picture resolution :

14MP/Piece

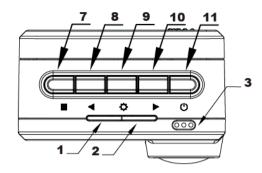
12MP/Piece

8MP /Piece

- Audio & Video playback
- Support1GB~32GB SDHC TF Storage card
- USB2.0 for data transfer and power charge
- HDMI & RCA Video output

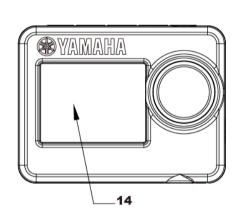
Install & Use

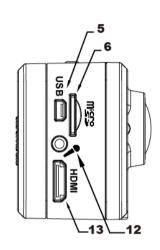
Camera Body Instruction







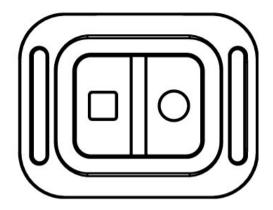




- REC indicator (Red) / Charging Indicator (Blue)
- 2. Remote Indicator (Green)
- 3. MIC
- 4. Tripod hole
- 5. USB/RCA
- 6. TF card slot
- 7. REC / Confirm
- 8. UP

- 9. MENU
- 10. Down
- 11. Power / Capture
- 12. MIC input
- 13. HDMI
- 14. LCD monitor
- 15. Speaker

Remote Controller (Optional)



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Remote to start video record only under Camera Powered ON, not valid if camera is OFF.

Stop video record

Remote to Stop the video record.

Remote Pair with Camera

Power on the camera first, then Press & hold the >> button and at the same time Press & hold the O button on the remote controller till the Green remote indicator (On camera,right one) turned on. Then we could try to control the camera START / STOP the video record to check if paired successfully.

Note:

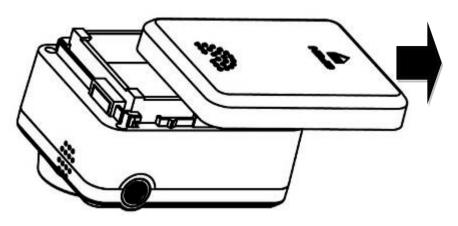
- -Please do not do any other operate during this.
- -Camera remote indicator (Green) will keep ON for 3 seconds if paired successfully.
- -Camera remote indicator (Green) will not turn on if not successfully paired.

This operation only necessary when you bought new remote controller, pairing process has been did before leaving factory.

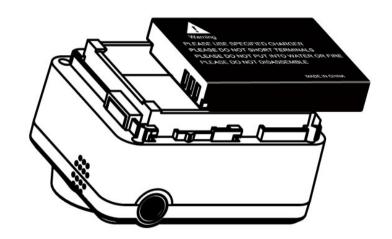
Install the battery

Please install the battery according to the graphic:

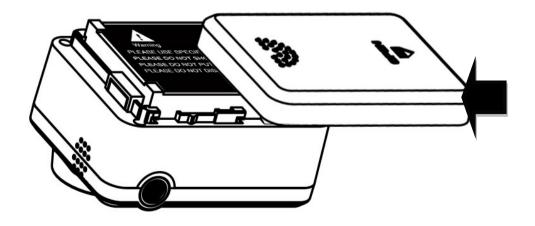
Open the battery cover



Install the battery (Note: label side face up)

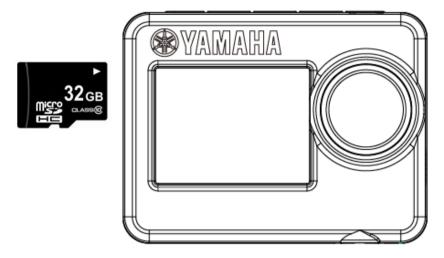


Close back cover

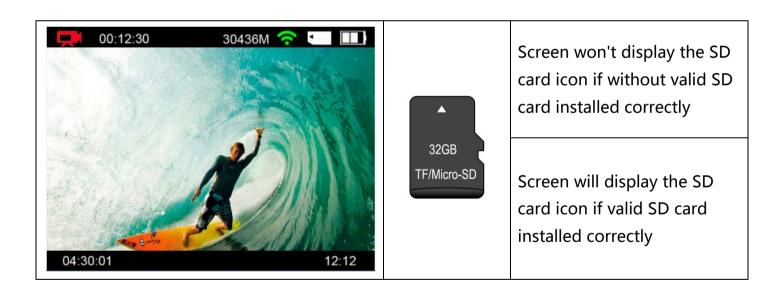


Install Memory Card

1. Install the TF card according to graphic



- 2. Camera without built-in memory, support 1GB~32GB TF card **above Class10** external memory expand
- 3. After installed the SD card, rest available memory could be checked on the screen

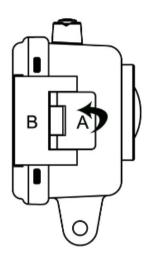


Attention:

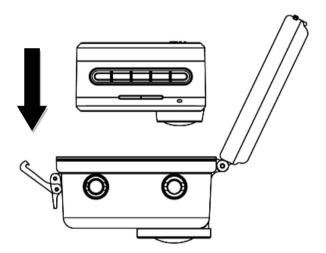
Please use the original SD card for good using experience. Bad or phony SD card would happen the problem like "can not read" or "file damaged". Please format the SD card in this camera before use it the first time. Class10 or above high speed SD card is necessary.

Install waterproof housing

As arrowhead showed in graphic below, pull "A" locker, "B" locker will slack off at same time automatically

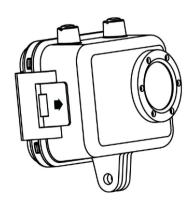


Put the camera into the waterproof housing as graphic below:

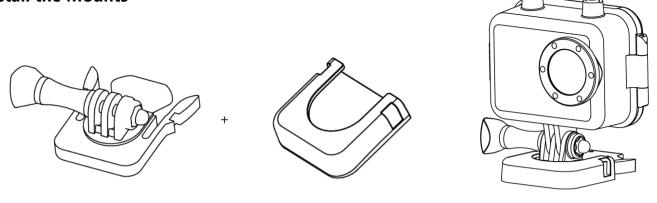


Close the cover

Close the locker "B" first, and then press the "A" locker to locked-in.

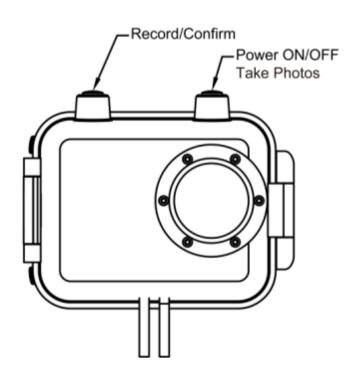


Install the Mounts



Please choose the suitable mount to finish the installation according to different use.

Waterproof Housing buttons instruction:



Note:

Waterproof housing max depth is 50 Meters (167 Feet)

A pot of fog or water globule would glue to the inside cover, it is allowed and won't effect the camera working.

Record & Capture

① Press Power button to turn on the camera, press REC button to start video record, when the red icon displayed on the left corner of screen, that means the camera is

doing normally record.



- ② Camera could start video record immediately if Wi-Fi turned OFF, but if Wi-Fi turned ON, camera will only available to start video record after Wi-Fi boot up completely, more details please check the Wi-Fi setting page.
- ③ Press POWER button to turn on the camera, press POWER button again to start taking picture. If here has record icon on the screen, that means camera under recording state, means not if no such icon.



Remote to take picture or record video, please check the Remote Controller instruction.

Picture taking function is not effected whatever the Wi-Fi is opened or not.

Media Playback

Press **MENU** button to enter the main menu, use < & > button to select the video folder

like below:



Press **REC** button to enter the folder, the video files display 3x5 like below:



Use < & > to select the video, press **REC** button to confirm, press **REC** button again to

play the video.



About how to delete the files, please turn to page 13.

Picture playback

Press **MENU** button to enter the main menu, use < & > button to select the picture folder

like below.

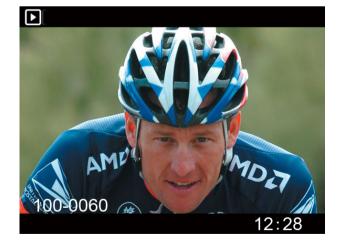


Press **REC** button to enter the folder, the picture files display like below:



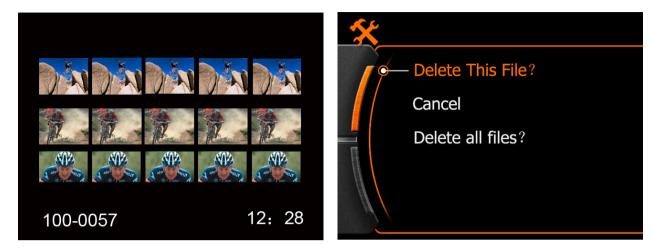
Use < & > to select the picture, press **REC** button to confirm, press **REC** button again to

play the picture.



Delete Files

Under playback or browse mode, press and hold the **MENU** button for 2 seconds, the delete option menu will appear.



Use < & > button to select suitable option, press **REC** button to confirm.



Yes: Confirm to delete

Cancel: Drop current operation

Press REC button to confirm the operation.

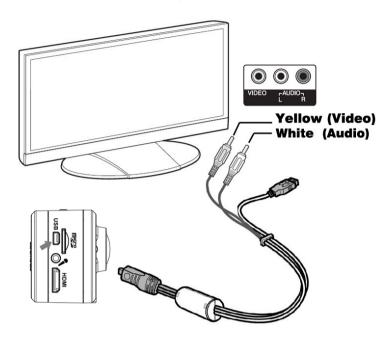
Note:

Please think carefully before use this function, files can not be recovered after deleted, advise to back up files in computer in advance.

Connect with TV

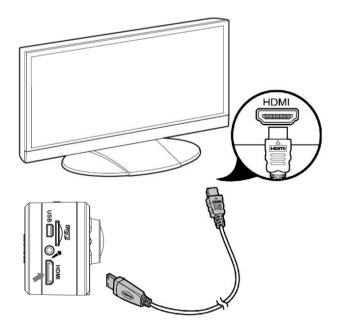
1.USB-RCA cable connect with TV (output)

Find out the USB-RCA cable in standard accessories, USB side insert to camera, RCA side insert to TV (Yellow for Video, White for Audio)



2. HDMI cable connect with TV (output)

Please insert the **A** type connector to the TV , insert **C** type connector to camera

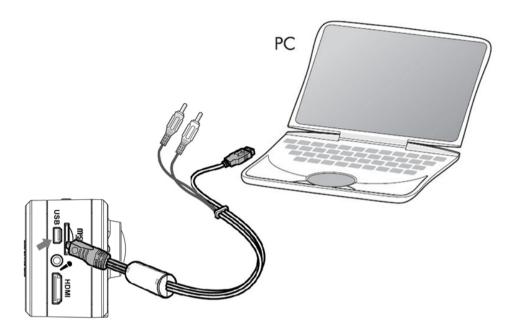


Note:

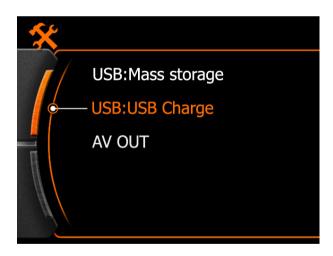
The video that output to TV is 1080P resolution when playing back video clip, real-time output display is 480i only.

Connect with PC

Camera connect with computer by USB cable, could browse the files in camera or charge the power.



Power on the camera after connect it with the computer by USB cable, the screen will display connecting graphic like below:



Please choose the suitable option according to need.

USB: Mass storage Read the media in the SD card

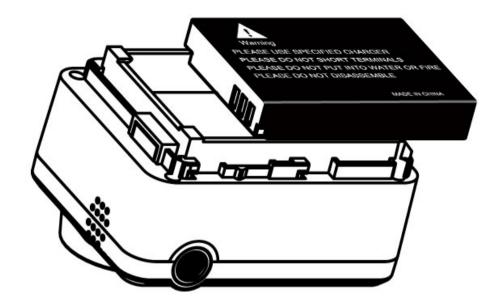
USB:USB Charge Charging the camera via the USB

AV OUT USB RCA video output

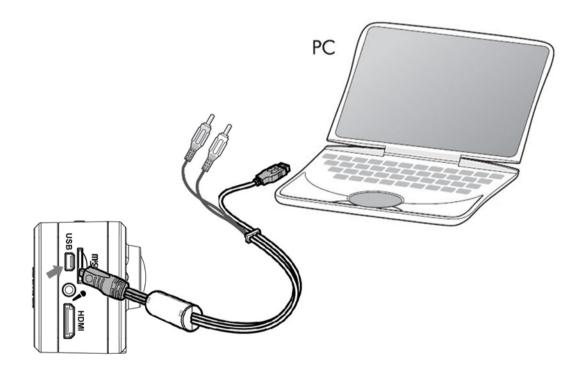
Power charge

1. Install the Battery

Please install the battery correctly according to below:



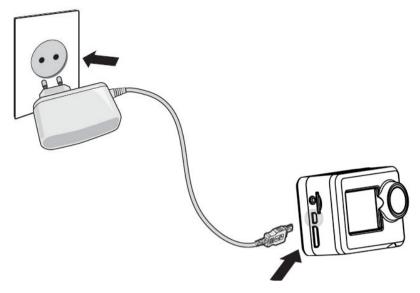
Charge the camera by computer via USB cable



Attention:

Please make sure the camera powered off when charging the camera by PC, the green indicator will flash while charging, and it will turn OFF after full charged.

2. Charging by wall charger (Optional)



Battery fully charging time and usage time

Fully charging time	Standby time	Recording time
Approximately 4 Hours under power ON state	Approximately 3.5 Hours	Approximately 150 minutes (1080P)
Approximately 3.5 Hours under power OFF state		

Battery Icon

Full power	75% power
35% power	Low power

Note:

- a ,Please do not keep the battery in the camera if long time aside.
- b ,Please do not use up the power completely.
- c ,Please fully charge the battery on first time use, it will help to extend the battery life.

System Icons

Main Interface



Icons

1080P/30	Video size and FPS	Ä	REC icon
28000M	Available storage		Picture taking mode
00 : 33 : 24	Recorded time	间	Burst
2010/09/21	Date		TF Card
16 : 18	Time		Battery
3	Wi-Fi OFF		Wi-Fi ON

Main Menu



Icons



Video folder



Picture folder



REC setting



System Setting

System Setting

Fast Setting:

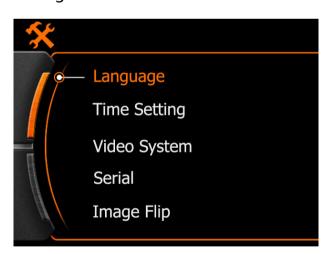
Press & Hold the **POWER** button 2 seconds to turn on the camera, press **MENU** to enter the main menu, use < & > button to select "System Setting" and press **REC** button to

confirm & enter.



1, Language Setting

Press **REC** button to enter language setting, use < & > button to select, press **REC** button to confirm and save the setting.



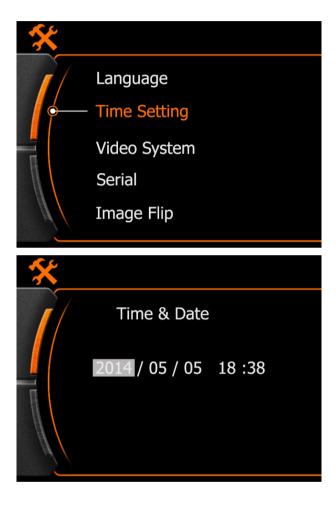
Here has 9 kinds of language in system, please make choice according to need.

Date & Time

Use < & > button to select and press **REC** button to enter.

Grey background means changeable, use < & > button to change numbers, press **REC** button to confirm and turn to next option.

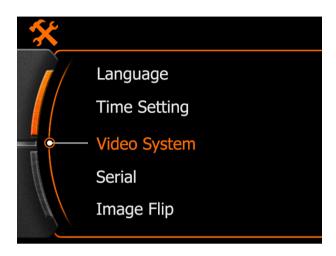
Press **MENU** to save and quit after finish the setting.



Video System

Use < & > button to select, press **REC** button to enter.

Use < & > button to select suitable system.



Press **REC** button to confirm choice, and the camera will reboot and back to this setting menu automatically.

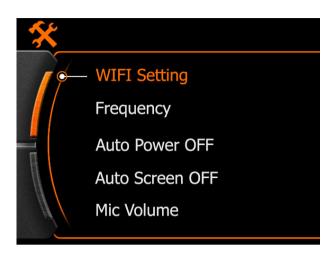
Note:

The frame rates are different in different system, consult below:

Resolution	NTSC/FPS	PAL/FPS
1920x1080p 16:9	30fps	25 fps
1280x960 4:3	30 fps	25 fps
1280x720 16:9	60 fps	50 fps
1280x720 16:9	30 fps	25 fps
848x480 16:9	60 fps	50 fps

Wi-Fi

Use < & > button to select the Wi-Fi setting, press **REC** button to confirm & enter. (Default is OFF).



Use < & > to select ON, press REC button to save, camera will reboot automatically.

Pair the mobile phone with camera by Wi-Fi, turn on the Wi-Fi.

Android phone: Setting-WLAN-Search Camera-connect, Password: 00000000

Apple phone: Setting-Wi-Fi-Search Camera-connect, Password: 00000000

After connected successfully, then quit this and open the APP that install in the tablet or mobile phone.

Could preview the pictures that captured by camera, control to take picture or record video, and change the camera settings.

Note:

Wi-Fi OFF: Mobile phone APP will not available to connect the camera.

Wi-Fi ON: After the camera boot or reboot, should wait 30 seconds till the Wi-Fi booted completely, only then the camera will available to record video.

Download & Install the APP

Please search "Smartcam" in Google Play store OS) to find it.



(Android OS) or Apple Store

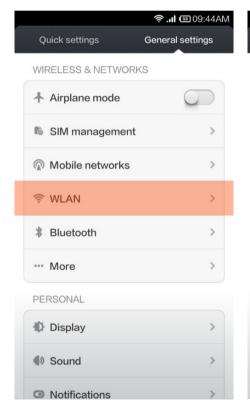


We will find the **Smartcam APP** like below on the cellphone if successfully installed.

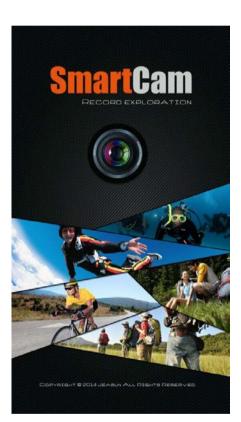


Connect the Cellphone with APP

Turn on the Wi-Fi of camera and the Cellphone like image below, and then find the "Smartcam" hotspot in the WLAN list of cellphone, choose to connect it, default password: 00000000 (Eight "0")

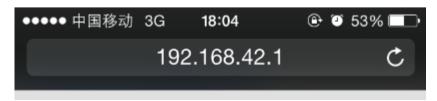






Connect the Cellphone via Direct IP address

Find& connect the camera by Wi-Fi like image above first, then open the browser of cellphone and input "192.168.42.1" this address, the control interface will appear.



Screenshot of APP works

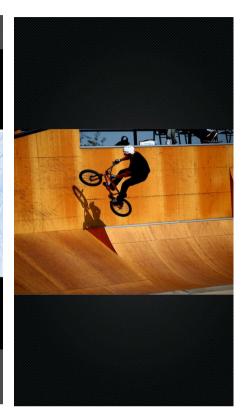
Real Time View

Replay video on the camera

Replay image on the camera



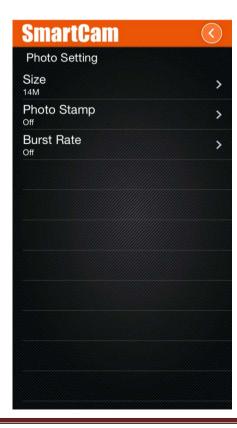


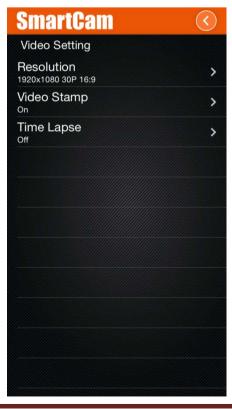


Change camera settings 01 camera

Change camera settings 02

Browse the media files on







Frequency

Auto: Auto system

50Hz: Suitable for country & area that got power frequency at 50Hz

60Hz: Suitable for country & area that got power frequency at 60Hz

Auto Power OFF

OFF: Turn OFF this feature

5 Minutes: Camera will power OFF automatically after 5 minutes if without any operation

10 Minutes: Camera will power OFF automatically after 10 minutes if without any operation.

Auto Screen OFF

OFF: Turn OFF this feature

1 Minute: The camera screen will turn OFF automatically after 1 minute if without any operation.

5 Minutes: The camera screen will turn OFF automatically after 5 minutes if without any operation.

MIC Volume

Default receiving sensitivity is 60%, optional between 60% ~ 100%.

Format

Cancel: Cancel current operation

Yes: Format the SD card

Reset

Cancel: Cancel current operation

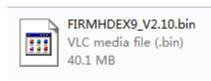
Yes: Go back to the default factory setting

Firmware Update

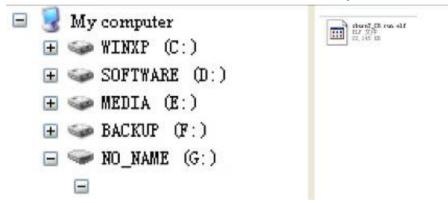
Please download the firmware from the official website, firmware will similar like below:



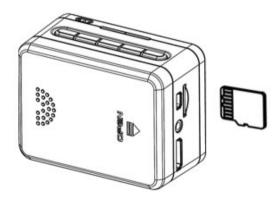
Released:



Copy the "FIRMHDEX9_V2.10.bin" to the root directory of SD card



Insert the SD card to camera



Processing the Update operation in system

Cancel: Cancel the updating operation **Yes**: Update the firmware

Note:

The Screen will display "Updating" if in correct processing, the camera will reboot automatically if successfully updated.

File error or no firmware found, system will notice "Firmware not found".

REC Setting

Press **MENU** to enter system menu, press **REC** button to confirm and enter video setting.



1. REC Mode

Press **REC** button to enter REC mode, use < & > button to select, press **REC** button to confirm and save the setting.





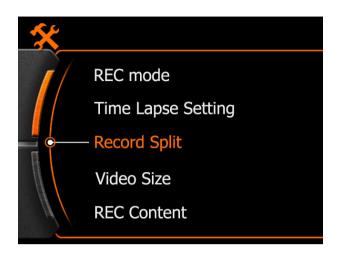
Normal REC: Press REC button on camera to start & stop video record

Time Lapse: Time Flies

Motion Detect: Start video record only when movement detected by the lens.

2. Record Split

Use < & > button to select, press **REC** button to confirm & enter, select "record split" button to save and quit.





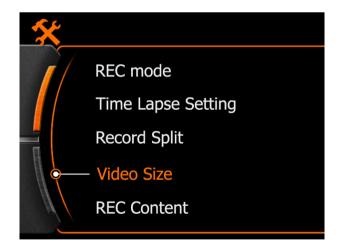
Note:

5Min: Means 5 minutes per footage; 30Min: Means 30 minutes per footage.

Camera will stop video record while card full.

3. Video Size:

Use < & > button to select, press REC button to confirm & enter.





Select suitable video size, press **REC** button to save and quit.

4. Other Features

REC Content

Video & Audio: Normal video with sound

Video: If a mute video needed

Dual Streams

OFF: System will not create thumbnail video file, only the original video read while browse via APP, the picture would be delay because the original video need big bandwidth.

ON: System will create a thumbnail small video file special for the real-time display on the cellphone & Tablet via the APP.

If Dual Steams opened, the Video Stamp will not work anymore and here without date & time displayed on the video.

Video Stamp & Photo Stamp

This is a switch for display the Date & Time on the video or picture.

Photo Size:

Optional 14MP / 12MP / 8MP

Self Timer:

Delay 3 / 5 / 10 seconds to take a picture (Burse Capture should be OFF)

Burse Capture

Take 3 / 5 / 10 pictures in one second. (Self Timer should be OFF)

Specifications

	Built in Memory		32MB		
	Memory Expand		Support 1G-32G SDHC Micro-SD		
	LCD	Size	1.5 inch		
	LCD	Resolution	480x240		
		DSP	(AMBARELLA) A5L30		
	Chipset	MCU	(CHIPSIP) DDR3 CT49248DD486C1		
	Sensor	Size	1/2.3" 14MP		
		Aperture	F2.8		
	Lens	Angle	170°		
Basic Spec	:	Construction	6G+1MG		
	Interface	Video output	HDMI/USB		
		MIC	Built in		
		Audio output	HDMI/USB		
		Speaker	8Ω 0.5W built in		
		USB	High speed USB2.0		
	Pattony	Туре	Rechargeable Li-ion battery		
	Battery	Volume	3.7V 1200 MAH		
	Button		Record, menu, up / down / power		
	Language		繁体中文、English、Russian、Spanish、Japanese		
			Italian、Nederlandse、Deutsch、French		
	Available recording time		110 Minutes		
Video	Optional	REC mode	Normal ,Motion detect, Time lapse		
	Video Resolution		1080P/30fps 、 960p/30fps 、 720p/60fps 、 480p/60fps		

	Video format	MP4 (H.264 MPEG4)
	Time lapse time	Frame per 1 / 10 / 30 Seconds , OFF
	Split video time length	5 / 10 / 20 /30 Minutes
	Optional REC content	Video / Audio
	Picture Size	14MP/12MP/8MP
Cantura	Picture mode	Single shot, burst , self-timer
Capture	Burst	3 / 5 / 10 pieces , OFF
	Self-timer	3 / 5 / 10 seconds, OFF
	Video	Loop playback,
Playback	Picture	Thumbnail, next, previous
	Wireless Protocol	IEEE 802.11 b/g/n
WIFI Spec	Frequency	2.4GHz~2.4835GHz
wiri spec	Wireless Mode	Direct
	Real-time video size	WQVGA
	OS requirements	iOS 6.1or above, Android 4.0 or above
Арр	Supported device	iPhone 4s, iPhone 5, iPhone 5s, iPod touch 4, iPod touch 5 (iPad3, iPad4, iPad mini Samsung Galaxy S3, S4, Note 2, Note 3, or similar mobile phone
	Functions	Real-time transfer, camera control, camera setting, album sync
	Camera size/weight	58.6 x 31.2 x 44.8 mm
Dimension	Waterproof case	84x45x59mm
	Waterproof depth	50 meters

Note: This manual is not the final version, please subject to the camera actual feature if here has any difference.

Note: Camera will lost warranty if disassembled or fall into water.



